

Teacher Learning in Planning Intercultural Science Education

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Abstract

Teachers need education to construct a professional profile according to the culturally diverse contexts and technological advancements in this global and hyper-connected world. The global competence is a frame that suggests a teacher profile including, at least, an intercultural and a digital dimension. However, there is little advancement in integration of the global competence in teacher education programs. Additionally, there is little evidence on how teachers learn the intercultural and a digital dimension and use them to conduct intercultural virtual education. Obtaining and communicating information on how teachers learn is relevant to evaluating education programs, strategies, tools, policies and theories. This paper aims to describe the learning process of a teacher engaged in a virtual module on virtual intercultural teaching of science. The module follows pedagogical and didactic principles for its design – a) content and tools, b) diversity in learning, c) relevant learning, d) metacognitive processes, e) collaboration between peers, f) interculturality, g) stages of learning and h) scaffolding with explicit instructions. The intercultural teaching practices for science education (ITPSE) are the central theoretical and practical content that the participants address in the module. The methodology of this study is qualitative and reports a case. The data collecting instruments are, first, a survey that asks open questions on the conceptual, procedural and attitudinal aspects of the intercultural and digital dimensions of the participant teachers. A second instrument is the form where teachers planned an ITPSE-based teaching sequence. Finally, teachers evaluated the module and the ITPSE-based instrument.

Keywords: cultural diversity, epistemology, science education, teacher education, teaching